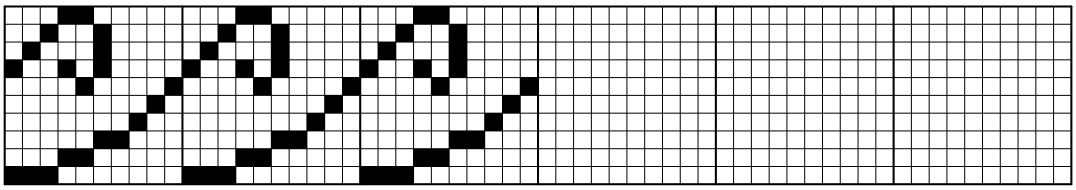
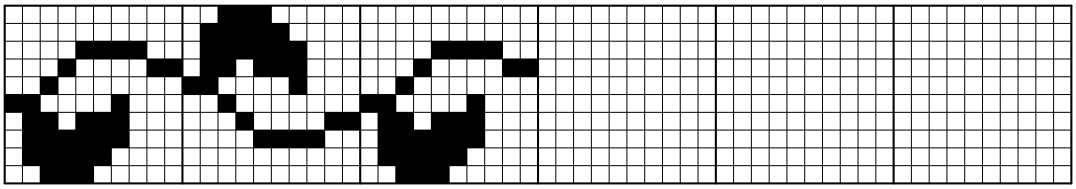
Name: Date:

There are 7 frieze-pattern groups (https://en.wikipedia.org/wiki/Frieze_group). To generate the patterns, we will need to use translation, mirror reflection, rotation (by 180°), and glide reflection (a combination of a reflection and translation). Please continue the frieze patterns shown below.

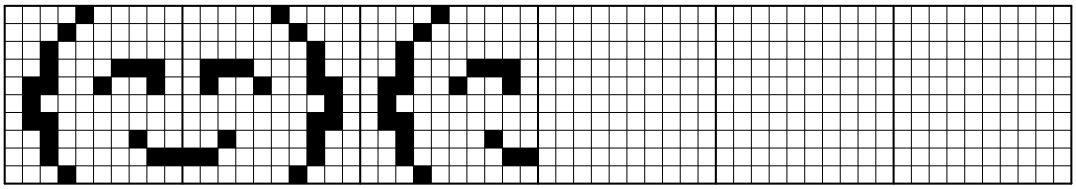
Hop (p1, translation only)



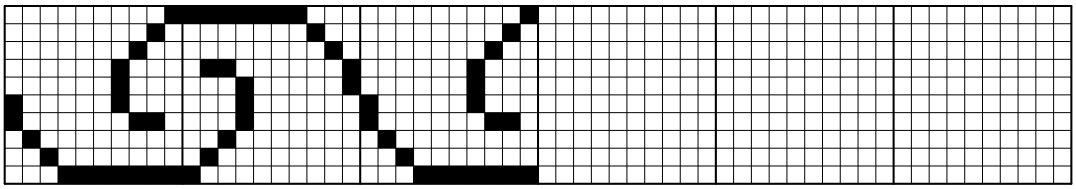
Step (p11g, glide reflections)



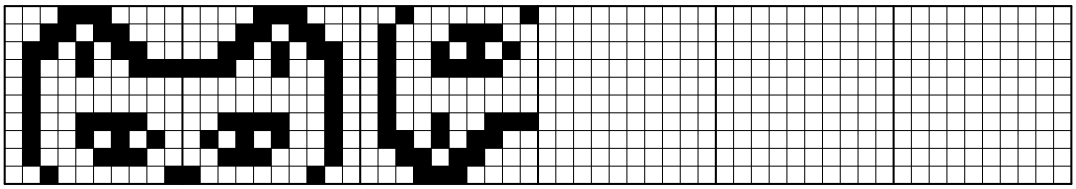
Sidle (p1m1, mirror reflections)



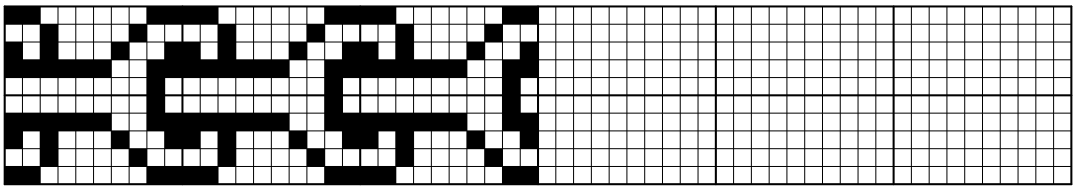
Spinning hop (p2, 180° rotations)



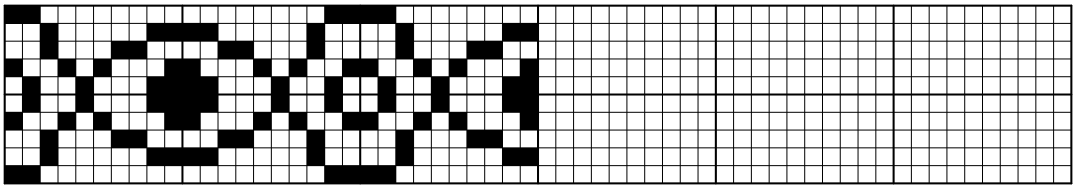
Spinning sidle (p2mg, mirror reflections and 180° rotations)



Jump (p11m, mirror reflection over horizontal axis, translation)



Spinning jump (p2mm, miror reflections over horizontal axis and vertical axes)



Now, make your own! Choose 3 (different) frieze groups, and make a pattern. You might try this tool: https://chadworley.github.io/frieze/frieze.html

Keep in mind, you do not need to actually fill the "pixels". You can draw smooth curves; you might find the grid helpful when enforcing the symmetry.

PLEASE SPECIFY WHICH FRIEZE GROUP YOU ARE USING!

Frieze Group:

Frieze Group:

Frieze Group: